

Remarks

The Office Action mailed October 16, 2009, has been received and carefully reviewed. The following remarks form a full and complete response thereto. No amendments have been made by this response. Accordingly, claims 1-5, 9-12, 39, 48, 59, 62-63 and 76 are pending in the application, and are submitted for reconsideration.

Claim Rejections under 35 U.S.C. §102

Claims 1-3, 9, 12, 39, 48 and 76 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 6,491,324 to Schmitz et al. ("Schmitz"). Applicants traverse the rejection and submit that claims 1-3, 9, 12, 39, 48 and 76 recite subject matter that is not disclosed by Schmitz.

Claim 1 of the present application recites a security element, which has at least one area with a diffraction structure embossed during an embossing process with an embossing die. This diffraction structure, when viewed under specific conditions, reconstructs a diffractive image. The at least one area further has subareas that are free of any diffraction structures. The subareas do not take part in the reconstruction of the diffractive image. Further, the subareas represent recognizable information, such as a number (e.g., Fig. 4). The subareas and the diffraction structure surrounding the subareas have the same or at least very similar reflecting properties under viewing conditions that do not result in the reconstruction of the diffractive image by the diffraction structures, so that the recognizable information represented by the subareas is recognizable substantially only under the specific viewing conditions. At least one of

the subareas is produced during the embossing process with an embossing die.

As a result of the claimed configuration, substantially only when the area is viewed under the specific conditions that result in the reconstruction of the diffractive image by the diffraction structures, the recognizable information represented by the subareas is recognizable and can be differentiated from the remaining area. See e.g., paragraph [0073], as discussed above.

Claims 9, 39, and 48 recite limitations that are similar to those recited in claim 1. Claims 1 and 39 recite that the subareas form a not diffractive contrast image so that the recognizable information is recognizable under viewing conditions that are the same as or similar to the specific viewing conditions that reconstruct the diffractive image. Claims 9 and 48 recite that the subareas form a not diffractive contrast image so that the recognizable information is recognizable under viewing conditions differing from the specific viewing conditions that reconstruct the diffractive image.

Schmitz is generally directed to a security document with a magnetic layer. See Schmitz Abstract. The magnetic layer serves as a security element and is normally visible as a dark stripe. See Schmitz Col. 1, Lns. 16-20. More particularly, Schmitz aims to provide a security document that has a magnetic layer that is barely visible in reflected light. See Schmitz Abstract. In order to achieve this, the security document is provided with a semitransparent layer that is disposed over the magnetic layer. Id. In some embodiments of Schmitz, a diffraction structure, which may be an embossed structure, is provided. See Schmitz Figs. 7 and 8 (ref. # 13), Col. 6, Lns. 60 to 63; Col. 8, Lns. 13-16.

Schmitz fails to disclose each and every limitation of currently pending independent claims 1, 9, 39, and 48. Specifically, Schmitz fails to disclose “subareas being free of any diffraction structures,” as recited in claims 1 and 9, and similarly recited in claims 39 and 48 (i.e., subareas of the area which do not take part in the reconstruction of the diffractive image). Additionally, Schmitz fails to disclose “the subareas that form a not diffractive contrast image,” as recited in claims 9 and 48, and described in claims 1 and 39.

Schmitz discloses that a lacquer layer 13, on which a diffraction structure may be formed, is applied over, inter alia, the magnetic layer 5, and that the magnetic layer 5 has gaps 10. See Schmitz Fig. 8 and Col. 6, Lns. 51-65. According to Schmitz, each gap 10 has a diffractive structure formed on the lacquer layer 13 above it. Thus, the alleged subareas of Schmitz are not free of diffractive structures and, in terms of the claimed invention, are not “subareas.” Moreover, this means that during recreation of the diffractive image created by the diffractive structure formed on the lacquer layer 13, the gaps 10 fail to create a contrast image.

Additionally, Schmitz fails to disclose that the recognizable information represented by the subareas is recognizable substantially only under specific viewing conditions, as recited in claim 1 and similarly in claim 39. Similarly, Schmitz fails to disclose that the recognizable information represented by the subareas is recognizable under viewing conditions differing from the specific viewing conditions of the diffractive image, as recited in claim 9 and similarly in claim 48. That is, according to the present invention, the recognizable information represented by the subareas is only

recognizable when the diffractive image is reconstructed (claims 1 and 39) or when the diffractive image is not reconstructed (claims 9 and 48).

By contrast, Schmitz states that the “[r]eflecting layer 14 must likewise be semitransparent in the present case, in order to permit visual and/or mechanical recognizability of gaps 10 incorporated in magnetic layer 5 in transmitted light.” See Schmitz Col. 6, Lns. 62-65. Transmitted light, as used in Schmitz, is light that is directed from the side of the carrier 4 that does not support the magnetic layer 5. Thus, while the magnetic layer 5 blocks a portion of the transmitted light, the transmitted light that passes through the gaps 10 is visible and can reveal information represented therein. The invention of Schmitz in no way ties the conditions under which the diffractive image of lacquer layer 13 is reconstructed to the conditions under which the information represented by the gaps 10 is visible. To the contrary, one of ordinary skill in the art would recognize that there is no such relationship, and that the information represented by the gaps 10 is visible using transmitted light whether or not the diffractive image of lacquer layer 13 is reconstructed. Thus, Schmitz fails to disclose, either expressly or otherwise, that the recognizable information represented by the subareas is recognizable substantially only under specific viewing conditions.

Moreover, it is important to note that the alleged subareas of Schmitz cannot be produced during the embossing process with the embossing die already providing the at least one of the subareas being free of any diffraction structures, as recited in claims 1, 9, 39, and 48. The alleged subareas of Schmitz are gaps 10 in the magnetic layer 5. According to Fig. 8 of Schmitz, there is at least one layer (e.g., a transparent lacquer

layer 15) disposed in between the magnetic layer 5 and the lacquer layer 13 on which a diffraction structure can be embossed. Thus, according to the structure shown in Schmitz, by the time lacquer layer 13 is being embossed with a diffractive structure, the magnetic layer 5 and therewith the gaps 10 have already been produced and covered with transparent lacquer layer 15. Thus, Schmitz fails to disclose that the subareas are produced during the embossing process with the embossing die already providing the at least one of the subareas being free of any diffraction structures.

For at least the above recited reasons, Schmitz fails to disclose each and every limitation of independent claims 1, 9, 39, and 48. Thus, claims 1, 9, 39, and 48 are not anticipated by Schmitz and are allowable. Further, claims 2-4, 10-12, 59, 62-63, and 76, which depend from claims 1, 9, 39, and 48, are likewise allowable.

Claim Rejections under 35 U.S.C. §103

Claims 4-5, 10-11, 59 and 62-63 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmitz in view of U.S. Patent Publication No. 2004/0101676 to Phillips et al. ("Phillips"). Applicants traverse the rejection and submit that claims 4-5, 10-11, 59 and 62-63 recite subject matter that is not disclosed or suggested by the combination of cited prior art.

Phillips is generally directed to optically variable security devices. More specifically, Phillips is directed to a color shifting optical coating that can be used to form security articles. See Phillips Abstract. Phillips fails to cure the above-described defects of Schmitz, and the Office Action fails to provide any other evidence that the

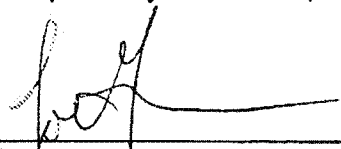
elements were known or obvious. For this reason, the Office Action fails to show that all of the claimed elements of the rejected claims were known in the prior art. Applicants therefore assert that claims 4-5, 10-11, 59 and 62-63 are allowable, and respectfully request that the current rejection be withdrawn.

In view of the foregoing, all objections and rejections have been sufficiently addressed. The Applicants submit that the application is now in condition for allowance and request that claims 1-5, 9-12, 39, 48, 59, 62-63 and 76 be allowed and this application passed to issue.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

Respectfully submitted,



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